Stormwater Management Report

Proposed Restaurant

Tax Map 22 Lots 115 & 116 66 Boston ROad Westford, MA

Date:

February 22, 2016

Prepared for:

Ebi Masalehdan P.O. Box 2127 Westford, MA 01886

TFM #: 31578.01

Prepared by:



Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

48 Constitution Drive, Bedford, NH 03110 **Tel:** (603) 472-4488 **Fax**: (603) 472-9747

www.tfmoran.com

Executive Summary

- It is being proposed to construct a restaurant, function hall and farm at 66 Boston Road, in Westford, MA.
- A combination of a catch basin and pipe drainage system is proposed to capture runoff from the project. A treatment detention basin will be used to convey and treat stormwater from the project.
- Best Management Practices are proposed to manage the stormwater from the development and propose treatment, recharge and maintain existing flow rates leaving the project area.
 - A treatment detention basin will recharge and convey runoff from the project.
 Stormwater is pretreated by the forebay and receives treatment by filtering through a bioengineered soil mix below the surface of the basin. Biological and chemical processes occurring within the soil continue the breakdown of pollutants.
 - The treatment detention basin is required to have pre-treatment prior to stormwater entering the main cell of the treatment practice. The forebay will provide pretreatment to allow sediment to settle out of the stormwater.
 - The treatment detention basin will remove pollutants, reduce the peak rates of flow and reduce flow volume by allowing evaporation and infiltration of the stormwater.
 - Infiltrated water is absorbed by plants which allows for pollutants to be taken out
 of the stormwater by vegetation and soil microorganisms. The stormwater
 receives further treatment as it percolates through the soil allowing for filtration
 and absorption by the organic matter and mineral complexes. Infiltration also
 provides groundwater recharge
- Stormwater from this project will be collected in a closed drainage system, conveyed to the proposed treatment detention basin, and discharged to the existing wetland.
- The peak rates of runoff will be mitigated at locations where stormwater leaves the project area in post-development conditions to meet existing runoff rates in the predevelopment condition.